

## REMARKS

Reconsideration of the application is respectfully requested for the following reasons:

1. Rejection of Claims 1 and 4-8 Under 35 USC §102(b) in view of U.S. Patent No. 3,359,048 (Lowe)

This rejection is respectfully traversed on the grounds that the Lowe patent does not a race that:

- a. is fitted onto and **rotates with** the shaft (as opposed to the shaft rotating relative to a bushing, as in Lowe); and
- b. includes a circumferential edge almost or slightly in contact with an *inner* wall of a shaft *seat* (as opposed to being resiliently pressed against the shaft seat, as in Lowe),

as claimed. To the contrary, bushing 68 of Lowe, which the Examiner interprets as an elastic “race,” is fixed with respect to the “seat” 20, the shaft rotating relative to the bushing, rather than with the bushing. This is ensured by spring 84 which *axially* compresses the bushing against shaft seat 20 via pressure ring 78. The bushing itself is made of Teflon, so minimize friction between the shaft and the bushing, and is “*placed under axial compression, so as to form a seal between the front part of the housing [i.e., the so-called “shaft seat”] and this seal, so as to safeguard against leakage under conditions of extreme low temperature* (col. 2, lines 67-72).

The bushing of Lowe cannot be considered to correspond to the claimed race for at least two reasons. First, it is not fitted tightly onto the shaft to rotate therewith, as claimed, but rather is axially compressed against the shaft seat. Second, because it is axially compressed against the shaft seat, it cannot be said to be “almost or slightly in contact with an inner wall” of the shaft seat, as claimed. Instead, the axial compression and resilience of the bushing, which also provides axial alignment (*i.e., lateral pressure*), ensures that the peripheral edge of the bushing, as well as the front edge, will be tightly in contact with, rather than slightly in contact with, the shaft seat.

In contrast to the seal of Lowe, and the corresponding seals of the other references cited by the Examiner, which all rely on a tight fit between the housing or shaft seat and the seal, the present invention takes the approach of using a rotating race, with at most a slight contact with the shaft seat, to seal in oil and prevent dust ingress. This approach taken by the claimed invention is exactly **opposite** that of Lowe and the other references of record, and therefore withdrawal of the rejection of claims 1 and 4-8 under 35 USC §102(b) is respectfully requested.

2. Rejection of Claim 2 Under 35 USC §103(a) in view of U.S. Patent Nos. 3,359,048 (Lowe) and 6,024,496 (Shy)

This rejection is respectfully traversed on the grounds that the Shy patent, like the Lowe patent, fails to disclose or suggest a rotating race having a circumferential edge almost or slightly in contact with the shaft seat, as claimed. Instead, the bearing assembly of Shy uses a conventional rubber ring seal 41 that neither rotates with the shaft nor is at most slightly in contact with the shaft seat, as claimed. As a result, withdrawal of the rejection of claim 2 under 35 USC §103(a) is respectfully requested.

3. Rejection of Claim 3 Under 35 USC §103(a) in view of U.S. Patent Nos. 3,359,048 (Lowe) and 4,613,288 (McInerney)

This rejection is respectfully traversed on the grounds that the McInerney patent, like the Lowe patent, neither discloses nor suggests a rotating race having a circumferential edge almost or slightly in contact with the shaft seat, as claimed. Instead, the bearing of McInerney is not sealed, but rather is designed to be lubricated by oil entering through inlet 90 (col. 5, line 66) and exiting through outlet 92 (col. 7, line 61).

The use of a seal, such as the seal disclosed by Lowe, in the circulating-oil turbocharger of McInerney would render the turbocharger of McInerney inoperative. In addition the inclusion of a circulating oil arrangement in the sealed shaft of Lowe would be contrary to the objectives of Lowe, which are to provide a good seal and *prevent* loss of lubrication. As a result, it is respectfully submitted that the ordinary artisan could not possibly have been motivated to apply any aspect of the system of McInerney to the device of Lowe, and therefore the proposed

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combination of McInerney and Lowe could only have been made in hindsight. As a result, withdrawal of the rejection of claim 3 under 35 USC §103(a) is respectfully requested.

Having thus overcome each of the rejections made in the Official Action, expedited passage of the application to issue is requested.

Respectfully submitted,

BACON & THOMAS, PLLC

A handwritten signature in dark ink, appearing to read 'B. Urcia', with a long horizontal line extending to the right.

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